

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for determining the presence of colorectal tumors ~~or pre-cancerous lesions~~ in a human subject, which comprises:

a) extracting DNA from stool samples;  
b) amplifying by PCR:

i) p53 gene fragments corresponding to exons 5-8 using the following pairs of primers labeled with fluorescent markers:

1)ctcttcctgcagtactcccctgc(SEQ ID NO:1) and  
gccccagctgctcaccatcgcta (SEQ ID NO:2),  
2)gattgctcttaggtctggcccctc (SEQ ID NO: 3) and  
ggccactgacaaccaccettaacc(SEQ ID NO: 4),  
3)gcgttgctctcctaggttggtctctg (SEQ ID NO: 5) and  
caagtggctcctgacctggagtc (SEQ ID NO: 6),  
4)acctgatttccttactgcctctggc(SEQ ID NO: 7) and  
gtcctgcttgcttacctcgcttagt (SEQ ID NO: 8),  
and

ii) APC gene fragments using the following pairs of primers labeled with fluorescent markers:

1)aactaccatccagcaacaga (SEQ ID NO: 9) and  
taatttggcataaggcatag (SEQ ID NO: 10),  
2)cagttgaactctggaaggca (SEQ ID NO: 11) and  
tgacacaaagactggcttac (SEQ ID NO: 12),  
3)gatgtaatcagacgacacag(SEQ ID NO: 13) and  
ggcaatcgaacgactctcaa(SEQ ID NO: 14),  
4)cagtgatcttccagatagcc(SEQ ID NO: 15) and  
aaatggctcatcgaggctca(SEQ ID NO: 16);

c) quantifying the amplified fragments and identifying  
the amplified fragments as amplicons;

d) calculating the total amount of different amplicons;  
and

e) comparing the the total amount of amplicons with a  
reference value determined on the basis of case series comprising  
healthy subjects and patients affected by colorectal tumors,  
wherein a total amount of amplicons higher than the reference  
value is indicative of the presence of colorectal tumors in said  
human subject.

2-8. (cancelled)

9. (previously presented) The method according to claim  
1, wherein the amplicon quantities are interpolated on a  
calibration curve obtained from known DNA amounts.

10. (previously presented) The method according to claim 1, wherein the amplicons are quantified with an automatic sequencer/analyser or using fluorimetric, colorimetric, radioactive or spectrophotometric detection systems.

11. (cancelled)

12. (withdrawn) A kit for determining the presence of colorectal tumors in a human subject, comprising:

oligonucleotides;

labelling agents;

a thermostable DNA polymerase; and

user instructions to carry out the method of claim 1.

13-22. (cancelled)